

Amendments to the Claims

1. *(Currently Amended)* An elastomeric stamp (10)–for printing a pattern on a substrate (500; 502)–with an ink (520),–the stamp (10)–being at least partially formed from a first material, the stamp comprising a first surface (12)–in a first plane, a second surface (14)–in a second plane and a third surface (16)–extending from the first surface (12)–to the second surface (14), the third surface (16)–being permeable to the ink (520), the first surface (12)–comprising a barrier layer (22)–being substantially impermeable to the ink (520).
2. *(Currently Amended)* An elastomeric stamp (10)–as claimed in claim 1, wherein the barrier layer (22)–is non-covalently bound to the first surface (12).
3. *(Currently Amended)* An elastomeric stamp (10)–as claimed in ~~claim 1, or 2~~claim 1, wherein the first barrier layer (22)–comprises an inorganic oxide.
4. *(Currently Amended)* An elastomeric stamp (10)–as claimed in ~~claim 1 or 2~~claim 1, wherein the first barrier layer (22)–comprises a polymer material.
5. *(Currently Amended)* An elastomeric stamp (10)–as claimed in ~~claim 1 or 2~~claim 1, wherein the first barrier layer (22)–comprises the first material in a modified form.
6. *(Currently Amended)* An elastomeric stamp (10)–as claimed in ~~any of the claims 1–5, claim 1~~claim 1, wherein the second surface (14)–comprises a further barrier layer (24)–being substantially impermeable to the ink (520).
7. *(Currently Amended)* An elastomeric stamp (10)–as claimed in claim 6, wherein the first surface (12)–and the third surface (16)–form an angle between 60–90°.
8. *(Currently Amended)* An elastomeric stamp (10)–as claimed in ~~claim 6 or 7~~claim 6, wherein the further barrier layer (24)–is of the same material as the barrier layer (22).

9. (*Currently Amended*) A method for printing an ink (520) in a pattern on a substrate (500; 502) of an electronic device using an elastomeric stamp (10), the elastomeric stamp (10) being at least partially formed from a first material, the elastomeric stamp (10) comprising a first surface (12; 22) in a first plane, a second surface (14) in a second plane and a third surface (16) extending from the first surface (12; 22) to the second surface (14), the third surface (16) being permeable to the ink (520), the first surface (12; 22) comprising a barrier layer (22) being substantially impermeable to the ink (520), the method comprising the steps of:

bringing the elastomeric stamp (10) into contact with a supply (510) of an ink solution;

absorbing the ink solution in the first material;

cleaning at least the barrier layer (22) of the elastomeric stamp (10);

drying the elastomeric stamp (10); and

forming at least a part of the pattern by placing the elastomeric stamp (10) on the substrate (500; 502) with the barrier layer (22) contacting the substrate and transferring the ink (520) from the first material to the substrate (500; 502) via the third surface (14).

10. (*Currently Amended*) A method as claimed in claim 9, wherein the step of cleaning at least the barrier layer (22) of the elastomeric stamp (10) comprises rinsing the elastomeric stamp (10) with a solvent.

11. (*Currently Amended*) A method of producing a patterned elastomeric stamp (10) for printing an ink (520) on a substrate (500; 502) of an electronic device, the method comprising the steps of:

providing a master (300) having a first surface (312) in a first plane, a second surface (314) in a second plane and a third surface (316) extending from the first surface (312) to the second surface (314);

depositing a first material precursor on said surfaces (312; 314; 316) of the master (300);

generating an elastomeric stamp (10) having a first surface (12) in a first plane, a second surface (14) in a second plane and a third surface (16) extending from the first surface (12) to the second surface (14) by transforming the first material precursor to a first material, said surfaces (12; 14; 16) of the elastomeric stamp (10) being permeable to the ink (520); and

forming a barrier layer (22) on the first surface (12) of the elastomeric stamp (10), the barrier layer (22) being impermeable to the ink (520).

12. *(Currently Amended)* A method as claimed in claim 11, wherein the step of forming a barrier layer (22) on the first surface (12) of the elastomeric stamp (10) comprises anisotropically depositing a metal on the first surface (12) of the elastomeric stamp (10).

13. *(Currently Amended)* A method as claimed in claim 12, further comprising the step of oxidizing the barrier layer (22).

14. *(Currently Amended)* A method as claimed in claim 11, wherein the step of forming a barrier layer (22) on the first surface (12) of the elastomeric stamp (10) comprises forming a layer of polymer material on the first surface (12) of the elastomeric stamp (10).

15. *(Currently Amended)* A method as claimed in claim 14, wherein the step of forming a layer of a polymer material on the first surface (12) of the elastomeric stamp (10) comprises adhering a polymer material to the first surface (12) of the elastomeric stamp (10).

16. *(Currently Amended)* A method as claimed in claim 14, wherein the step of forming a layer of a polymer material on the first surface (12) of the elastomeric stamp (10) comprises depositing a precursor of the polymer material on the first surface (12) of the elastomeric stamp (10); and

forming the layer of the polymer material from the precursor.

17. (*Currently Amended*) A method as claimed in claim 16, wherein the step of forming the layer of the polymer material from the precursor is preceded by depositing a polymerization initiator on the first surface (12) of the elastomeric stamp (10).

18. (*Currently Amended*) A method as claimed in claim 14, further comprising the steps of: modifying the first surface (312) of the master (300); and depositing a precursor of the polymer material on the modified first surface (322) of the master (300).

19. (*Currently Amended*) A method as claimed in claim 11, wherein the step of forming a layer (22) of a second material on the first surface (12) comprises modifying a layer of the first material at the first surface (12).

20. (*Currently Amended*) A method as claimed in ~~any of the claims 11-19~~ claim 11, further comprising the step of forming a further barrier layer (24) on the second surface (14) of the elastomeric stamp (10), the further barrier layer (24) being impermeable to the ink.

21. (*Currently Amended*) A method as claimed in claim 20, wherein the further barrier layer (24) is formed from a same material as the barrier layer (22).